

The
INDIANA
LIFE SCIENCES ACADEMY

“LEARNING FOR LIFE”



LOCATED IN INDIANAPOLIS, INDIANA

CHARTER SCHOOL PROSPECTUS

Submitted to The Honorable Bart Peterson

Mayor of Indianapolis

April 14, 2003

Charter Applicant Information Sheet

Name of Proposed Charter School

Indiana Life Sciences Academy

Proposed School Address (if known)

Facilities currently being evaluated

School District in which Proposed School would be located

Indianapolis

Legal Name of Group Applying for the Charter

Indiana Life Sciences Academy, Inc.

The proposed school will open in the fall of school year: **✓2004-05**

Proposed Grade Levels & Total Student Enrollment:

	Grade Levels	Total Student Enrollment
First Year	6,7,8,9	240
Second Year	6,7,8,9,10	300
Third Year	6,7,8,9,10,11	360
Fourth Year	6,7,8,9,10,11,12	420
Fifth Year	6,7,8,9,10,11,12	420
Sixth Year	6,7,8,9,10,11,12	420
Seventh Year	6,7,8,9,10,11,12	420

Are you planning to work with an educational management organization (EMO)? **No ✓**

Have you submitted this application to another sponsor? **No ✓.**

Do you plan to submit this application to another sponsor before the Mayor of Indianapolis makes a final determination on your application? **No ✓.**

Executive Summary

Mission Statement

The Indiana Life Sciences Academy (ILSA), in partnership with students, parents and the community, will attain excellence through providing a rigorous and quality education for middle and high school students with a special focus on the life sciences (the study of living organisms), math and technology.

ILSA will provide a rigorous academic program sustained by a nurturing, disciplined and dynamic learning culture. Proven instructional strategies will identify and address student needs and individual learning styles. High achievements in both academic and non-academic proficiencies will convey ILSA's ability to empower and inspire its students to achieve their own personal excellence. ILSA graduates will have the confidence and training to successfully compete and advance to higher education. As leaders, they will support and enhance future advancements in the life sciences and other developing technologies.

Community Need

- The vital need for a school such as ILSA can be glimpsed from the results of the *National Assessment of Educational Progress* (NAEP) and the *Third International Mathematics and Science Survey* (TIMSS), which demonstrate how far we must go to prepare our public school students in core science disciplines:
 - Three quarters of American students are not proficient in math and science in grades 4, 8 or 12. A third do not even possess basic level science skills.
 - The performance of American students on international math and science tests (TIMSS), on average, declines as a student progresses through school. By the 12th grade, American students, on average, ranked near the bottom in comparison with their peers from 41 other countries.
- This lack of education in our K-12 schools has helped to fuel a 20% decline in graduation degrees in science from U.S. colleges and universities since 1990. *Under-representation among women and minorities is particularly alarming.* Yet the U.S. Department of Labor estimates that universities will have to produce four times more graduates in the sciences to meet the demand over the next decade, double the rate of most other occupations.
- In addressing these issues, ILSA's goal is to duplicate the successes of Horizon Science Academies' charter programs in Cleveland and Dayton, Ohio. At the Cleveland site, student scores in the Ohio Proficiency Exam in science rose from 18% in 1999-2000 (when the school first opened) to over 71% by 2001-02. Similar increases were seen in other subjects, including a 59% increase in mathematics, a 44% increase in both writing and in citizenship, and a 27% increase in reading (*Horizon Science Academy's Annual Report, 2002*).

Because a majority of the Cleveland school's 361 students are children of color (55% black, 10% Hispanic, and 3% Asian), these results prove that minority students can and do rapidly succeed -- despite any past lack of success -- when challenged and supported to the same degree as are white children.

ILSA's Focus on the Life Sciences

The life sciences involve the research and development of biological, agricultural and medical advancements for scientific and economic use.

- Indianapolis' life science industry is significant because of its size - nearly 900 companies and 82,000 employees. *This industry encompasses \$13.6 billion dollars regionally!* (Central Indiana Life Sciences Initiative)

- This has led to the recent establishment of the *Central Indiana Life Sciences Initiative* to ensure that we remain a national center for life science research and development. Developing this Initiative continues to be a key priority of Mayor Bart Peterson.
- In addition, ***Energize Indiana***, our Governor's \$1.25 billion, 10-year initiative to boost Indiana's economy, has targeted the life sciences as one of its four principal sectors.

ILSA's board believes that it is vital for the economic well being of our metro area and for urban families in search of future higher-paying job opportunities that Indianapolis' public school students have adequate preparation for possible careers in the life sciences, math and technology. If our children are not trained in these fields, they will be excluded from the fastest growing economic sector in the metro region.

- Yet a recent study showed that only 44% of African American students enrolled in IPS actually graduate ("High School Graduation Rates in the United States," Manhattan Institute for Policy Research, 2001), although they compose over 58% of all enrolled students.
- In addition, only 24% of IPS seniors (an actual minority of all youth who have not already dropped out of school) took SAT exams in 2000-1 (representing a decline of 8% from five years earlier). Thus only a fraction of those students entering the ninth grade eventually entered college, and many of these subsequently left higher education due to inadequate preparation in public schooling.

Foundation Curricular Approach

ILSA's founding board has the vision to initiate a college preparatory middle and high school with a rigorous and innovative educational program focusing on the life sciences, mathematics and technology.

Based on the Horizon Science Academy model, **ILSA** will forge students, parents, and educators into a partnership that will provide our urban students with the support and tools necessary to achieve admittance into local and national universities, with a potential focus in science curricula.

Educational Plan

ILSA will establish a small, structured school with a maximum of 420 students at full enrollment in grades 6-12. Students will experience a learning culture that instills within them a passion for science, math, technology, inquiry and creativity, and true learning in all subject areas.

The most important factor in improving educational outcomes in a classroom (especially in science, mathematics, and technology) is the presence of a highly qualified teacher who has an extensive background in the content areas as well as an effective pedagogy. Most schools struggle to find, train, and keep qualified math and science teachers, and many have used out-of-field teachers, particularly at the high school level. **ILSA** will follow the proven practice of Horizon Science Academies in recruiting additional talented teachers from abroad through a teachers exchange program, augmented by local resources. We will also use the resources available within our state to ensure all our teachers have opportunities to improve their content knowledge, learn how to implement high quality curricula linked with state standards, successfully integrate technology into their lessons, and learn how to capture the imagination of their students through the unique mode of inquiry that effective science teaching requires.

ILSA students will learn science by actively engaging in inquiries that are both interesting and important to them. Teachers will be empowered to make key decisions about what students will learn, how they can best learn it, and how resources are allocated. Together, teachers and students will be members of a greater Indianapolis community with a focus on learning the life sciences.

In addition, **ILSA** students will prepare science projects, participate in national and international science contests, organize local science fairs, and undertake internships in cooperation with local universities and

corporations to enhance their applications to universities and colleges and give them a real advantage in obtaining available scholarships.

Plan for Meeting School Goals

This innovative educational approach allows **ILSA** to pursue its vision of exceeding the district's poor SAT averages, achieving high college acceptance rates and greatly surpassing IPS's ISTEP passing scores. A committee consisting of Board members, teachers, and parents shall guide and review the achievements of all goals listed in this proposal. **ILSA** will:

- Treat all students as gifted and talented
- Provide intense, individualized instruction in the life sciences, math, technology and reading
- Engage students through home visits, peer study groups individualized instruction
- Prepare *all* students for college admittance without remediation
- Invite local scientists from IU, Lilly, as adjunct volunteer faculty
- Provide opportunities for internships, projects, and science fairs and competitions, and
- Collaborate with local universities, agencies and businesses to share resources and assets

Business Plan

ILSA is partnering with SchoolStart, a Minnesota-based non-profit with extensive experience in helping to launch successful charter schools. SchoolStart is assisting **ILSA** through giving guidance in the areas of finance, fundraising, governance, staff development, accountability, board training, and other key issues, with the aim of building our own capacity for long-term success.

ILSA shall seek start-up funding from the Walton Family Foundation and seek additional funds from other foundations and local community businesses. Our Business Manger will work closely with Ann Lorenz, our board Treasurer who is also a certified accountant, to ensure compliance with all laws, sponsorship requirements, effective internal controls, audit compliance, procurement, and correct accounting procedures.

Potential Partners

ILSA will partner with both educational institutions (such as Franklin College) as well as corporations and research centers involved in the life science and technology industries. Through SchoolStart, it will have access to a Walton Family Foundation start-up grant of \$150,000, and as a high school it plans to apply for a substantial grant from the Bill and Melinda Gates Foundation. It is also in the process of approaching major local corporations for grants, scholarship funding, in-kind donations, and overall support.

Founding Team's Capacity

ILSA's Board of Directors brings extensive experience through co-founding a highly successful science academy and working in the life science industry, in public school teaching and educational consulting, and in accounting and law. It includes administrators at Eli Lilly as well as researchers and graduate students in the biotech and life sciences field..

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I. Our Vision

A. Mission

The Indiana Life Sciences Academy (**ILSA**), in partnership with students, parents and the community, will attain excellence through providing a rigorous and quality education for middle and high school students with a special focus on the life sciences (the study of living organisms), math and technology.

ILSA will provide a rigorous academic program sustained by a nurturing, disciplined and dynamic learning culture. Proven instructional strategies will identify and address student needs and individual learning styles. High achievements in both academic and non-academic proficiencies will convey **ILSA**'s ability to empower and inspire its students to achieve their own personal excellence. **ILSA** graduates will have the confidence and training to successfully compete and advance to higher education. As leaders, they will support and enhance future advancements in the life sciences and other developing technologies.

B. Need

Former Senator John Glenn, Chairman of the National Commission on Mathematics and Science Teaching for the 21st Century, wrote in the foreword to its *The Report to the Nation* (1999):

“First, at the daybreak of this new century and millennium, the Commission is convinced that the future well-being of our nation and people depends not just on how well we educate our children generally, but on how well we educate them in mathematics and science specifically. It is abundantly clear from the evidence already at hand that we are not doing the job that we should do—or can do—in teaching our children to understand and use ideas from these fields. Our children are falling behind; they are simply not “world-class learners” when it comes to mathematics and science.”

The TIMMS Studies

Glenn's views have been validated in two international reports published by the Third International Mathematics and Science Study (TIMSS).

- In 1999, when U.S. eighth-graders were ranked against 37 other nations in their knowledge of mathematics and science, U.S. students scored 17% lower than students in Singapore and many other Asian countries in math, and significantly lower than Taipei and other countries in science. In fact, overall U.S. scores lagged behind students not only in nations with higher-tech economies, but behind those of the Slovak Republic, Slovenia, Russia, Malaysia, Bulgaria, the Czech Republic, Latvia and Hungary.
- Between 1995 and 1999, the TIMMS studies showed little or no overall improvement in eight-grade mathematics and science achievement among U.S. students
 - In terms of children of color, while U.S. eighth-grade black students showed a small increase in their achievement in mathematics over these four years, they showed no change in math.
 - U.S. Hispanic students showed no change in either category.

Finally, the mathematics and science performance of the United States relative to other nations was lower for eighth-graders in 1999 than it had been for fourth-graders 4 years earlier. In other words, these studies showed that the performance of U.S. students continued to decline as they advanced to middle school. (*Trends in International Mathematics and Science Study*, National Center for Educational Statistics, 2000)

Indianapolis Public Schools (IPS)

The Indianapolis Public Schools (IPS) is the largest system in the state and educates largely lower economic, urban students. Despite the IPS Math, Science and Technology Improvement Initiative, a five-year program (1994-1999) created to improve performance in test scores, reports between 1998 and 2003 indicate that approximately two thirds of IPS' 6th, 8th and 10th graders continue to fail the math portion of the ISTEP.

Percent passing ISTEP+ Math Standard						
	Indianapolis Public Schools			Indiana Average		
Year	Grade 6	Grade 8	Grade 10	Grade 6	Grade 8	Grade 10
1998-99	27%	27%	29%	60%	64%	60%
1999-00	33%	32%	31%	62%	64%	65%
2000-01	30%	30%	35%	64%	65%	68%
2001-02	29%	34%	31%	62%	67%	66%
2002-03	32%	32%	36%	69%	67%	68%

This poor performance continues in IPS's SAT scores, despite very low student participation rate (only 24% in 2000-01 due to the fact that most students do not apply for post-graduate education). The following table summarizes the SAT participation rates and scores at IPS by years compared to state and national averages.

SAT Scores for College Bound Seniors										
	Indianapolis Public Schools				Indiana Average			United States Average		
Year	Pct of 12 th Graders Tested	Verbal	Math	Total	Verbal	Math	Total	Verbal	Math	Total
1996-97	32%	444	434	878	494	497	991	505	511	1016
1997-98	34%	452	428	880	497	500	997	505	512	1017
1998-99	33%	443	428	871	496	498	994	505	511	1016
1999-00	26%	453	446	899	498	501	999	505	514	1019
2000-01	24%	455	451	906	499	501	1000	506	514	1020

ILSA is committed to increase both the performance of its students and the rate of application to post-graduate education through (1) improving their academic performance to the level realistically required for college admittance, (2) motivating and encouraging students and parents about the need and feasibility of gaining college admittance, and (3) pro-active college admittance counseling to ensure opportunities exist for all graduating seniors.

Indianapolis Public School Magnet Programs

A magnet program is a specialized educational program created to enable students to take advantage of additional resources and innovative techniques that focus on the individual talents and interests of students. Although all interested IPS students have an equal opportunity to participate in a magnet or option program,

middle and high school programs usually limit admission through rigorous eligibility requirements (i.e. grades, achievement test scores, teacher recommendations, auditions, essays or portfolio).

The Indianapolis Public Schools operates thirty-six magnet programs. Math, science and/or technology magnet programs are conducted in six middle and three high schools (*Middle Schools*: Cold Spring, Donnan, Harshman, Howe, Marshall, McFarland, and Shortridge; *High Schools*: Manual, Tech). Recent 6th and 8th grade 2002 ISTEP+ Math results for these nine schools ranged from 18-49% and 25-46% passing, respectively. However, seven of these 9 IPS schools have other magnet programs, and these results reflect a composite of all the magnet and/or other programs rather than the performance of the specific math, science and technology magnet. **ILSA** has requested specific 2002 ISTEP+ Math results for all IPS math, science and technology magnet programs. Unfortunately, through we are still actively attempting to obtain this information, it has been delayed or is unavailable and is not yet in our hands at the time of this writing. (If obtained, it will be sent as a supplemental document.)

Note that **ILSA** will offer specialized programs for all students, not just for those who pass specific admissions requirements. It will utilize a curricular model that has already has had a history of success for the vast majority of children who enrolled in our specialized program areas.

The Horizon Science Model

ILSA's goal is to duplicate the successes of the Horizon science charter programs in Ohio. While **ILSA** will not be a formal or contractual part of the Horizon Academy network, it will make full use of the academic and non-academic strategies that have proven successful through duplicating these models for our own success.

The Horizon Science Academies (HSA), now serving grades 6-12, were established as charter schools in 1999 in Cleveland and Columbus to serve inner city children in those cities. Greatly increased scores on the *Ohio Proficiency Exam*, together with numerous awards in regional, state, national and international science, math and engineering competitions, contests and fairs, have proven their early success.

For example, at the Cleveland site, student scores in the *Ohio Proficiency Exam* in science rose from 18% in 1999-2000 (when the school opened) to over 71% in 2001-02! Similar increases were seen in other subjects, including a 59% increase in mathematics, a 44% increase in both writing and in citizenship, and a 27% increase in reading (*Horizon Science Academy's Annual Report*, 2002). Accumulative student outcomes for the Cleveland location follow (Please refer to **Appendix I** for HSA data) :

Accumulative Student Scores in Subject Areas, Ohio Proficiency Exam

<i>Year</i>	<i>Writing</i>	<i>Science</i>	<i>Reading</i>	<i>Mathematics</i>	<i>Citizenship</i>
1999-2000	47	60	12	35	18
2000-2001	49	68	30	35	41
2001-2002	91	87	71	79	71

Not only is the degree of these increases remarkable. Because a majority of the Cleveland school's 361 students are children of color (55% black, 10% Hispanic, and 3% Asian), these results prove that minority students can and do rapidly succeed -- despite any past lack of success -- when challenged and supported to the same degree as are white children.

These improvements have also been evident to the greater Cleveland community. The Cleveland school now has a waiting list of over 150 students. (The Columbus location, with a student population of 200, has a waiting list of 80.)

Horizon's success has even more impact when viewed against the graduation rate for African American children in the IPS system. While composing 58.6% of the 41,000 students enrolled in the 2000-2001 academic year ("Indianapolis Public Schools Teacher Recruitment and Retention," October, 2001), a recent study showed that only 44% of African American students enrolled graduate ("High School Graduation Rates in the United States," Manhattan Institute for Policy Research, 2001). Even though Horizon is an inner city school with a similar African-American demographic to IPS, there have been virtually no dropouts in terms of students leaving the educational system for those enrolled at least one semester.

ILSA has recruited a Board member, an administrator and a consultant from Horizon to assist with the organization, development and implementation of our school. They have dedicated a considerable amount of their time and energy to bringing their experience to Indiana. With their help, we are confident this success can be duplicated in Indianapolis.

Why Focus on the Life Sciences?

After examining the (1) backgrounds and strengths of its key founders, (2) future employment opportunities for our prospective graduates, (3) the educational priorities and needs of our metro economy, and (4) potential academic partnership opportunities available to a science-oriented charter school, **ILSA** decided to place its particular curricular focus on the life sciences. The life sciences include ecology, nutrition, public health, agriculture, genetics, medical devices, biotechnology, and many other specialized fields connected with living forms.

- During the 1990's, the life sciences grew 40 percent faster than any other industry in the state. (Battelle Memorial Institute)
- More than 320,000 Hoosiers statewide make their living in the life sciences (Battelle Memorial Institute)
- Medical device firms alone employ one out of every eight Indiana workers (www.devicelink.com, Sept., 2001)
- Indianapolis' life science industry is significant because of its size - nearly 900 companies and 82,000 employees. This industry encompasses \$13.6 billion dollars regionally! (Central Indiana Life Sciences Initiative)

Numerous life science companies and centers of higher learning have coalesced in our metro area, leading to the recent establishment of the *Central Indiana Life Sciences Initiative* to ensure that we remain a national center for life science research and development. Its core leadership includes Mayor Bart Peterson; Sidney Taurel, president and CEO of Eli Lilly and Company; Dr. Myles Brand, former President of IU; and Dr. Martin Jischke, President of Purdue U. Realizing the vital importance of this industry to the future well being of Indianapolis, Bart Peterson made the Initiative one of his key mayoral priorities (as he did the establishment of charter schools). One of the Initiative's four main goals is "forming public-private academic partnerships to ensure a skilled workforce to help bring new products to market."

In addition, **Energize Indiana**, the Governor's \$1.25 billion, 10-year initiative to boost Indiana's economy has targeted the life sciences as one of its four principal sectors. *Energize Indiana* passed the state House of Representatives with overwhelming, bipartisan support in March. Its purpose is to create 200,000 new high-wage high-skill jobs, and it supports adding \$200,000,000 toward K-12 education standards and accountability.

The metro area's economic viability depends on its ability to fill skilled jobs in these emerging science and technological industries. Yet there is a real question of *who* will fill these jobs. To what extent will people of color and poor people be represented among this largely highly paid, skilled workforce? Given the

current results and low graduation rates from our traditional school system, our inner city children are at a great disadvantage in finding themselves ill prepared to pursue these opportunities.

ILSA's task is, first, to ensure that its students not only are capable of being employed in these industries, but have the confidence and training to enable them to compete at the highest levels and become leaders in these fields. Second, our objective is to interest, encourage, motivate and inspire them to enter this burgeoning sector.

C. Goals

ILSA believes that every child has an inherent curiosity and love of learning. **ILSA** is committed to the enhancement of these basic attributes through a rigorous academic curriculum and a nurturing but disciplined school culture.

Academic Performance

As the school recognizes that many of its students will be at-risk academically, the needs and learning styles of all students will be assessed at entry. **ILSA** will implement a “brain-compatible” learning curriculum that has proven extremely successful in other states, utilizing and combining self-paced, tutorial/mentoring programs and computer-based learning activities.

ILSA will provide a stimulating, diverse, “hands on” learning environment to prepare students for leadership and productive careers in the life sciences, math and technology. Students will develop knowledge and skills based on an accelerated and enriched curriculum. Further enhancement and innovative ideas will be stimulated through practical applications of theories, scientific competitions, internships and summer study aboard programs. Accomplishments will be measured by students' performance and proficiency as defined by the Indiana Academic Standards and a wide variety of assessments as well as the progressive increase and overall high performance of **ILSA** students in science, math and technology competitions.

Goal 1: On average, 75% of students will meet the graduated scale for raising test scores in reading and math, including *performing at grade level* within the second year of a student's enrollment.

- **ILSA** shall have consistent and continued growth in academic development and achievements, as measured by an overall increase of proficiency in basic skills along with demonstrated excellence in science, math and technology.
 - These goals shall be attained in graduated steps leading to total attainment by our fourth year of operation. **ILSA** students will exceed the average academic performance levels as indicated by a significant (10% or more) steady annual increase in individual and overall passing scores in language and mathematics to achieve an average 75% passing rate on 6th, 8th and 10th grade Indiana State-Wide Test of Educational Progress (ISTEP) within 3 years of enrollment.

Goal 2: For those students graduating from **ILSA** and in attendance at least 3 years, 95% who apply shall be accepted without remediation to an accredited college, university or advanced technical school.

Organizational Viability

Goal 1: **ILSA's** Board of Directors, committed to developing a strong, secure financial foundation for the school, is aware that pending legislation may jeopardize the financial security of Indiana charter schools. Therefore, **ILSA** will establish a Financial Advisory Board to provide guidance on ways to supplement public funding through significant contributions and partnering opportunities from individuals, private foundations and grants. **ILSA's** initial target is raising \$500,000 for the start-up year.

- Dr. Richard Swindle, former Franklin College Vice President of Development and a key component in Franklin's recent achievement of its \$48.5 million capital campaign, has agreed to join **ILSA's** Financial Advisory Board.
- Schools partnering with SchoolStart, a non-profit currently helping **ILSA**, are averaging \$150,000 in grant awards from the Walton Families Foundation for the start-up period. We will seek additional funding from the Gates Foundation High School Project, in cooperation with the Mayor's office, to serve those **ILSA** students in the upper grades.
- A professional accountant will be hired to ensure appropriate management of funds and fiscal responsibility according to Generally Accepted Accounting Principles (GAAP) as well as state and federal regulations. Sound financial controls will be demonstrated by clean audits by an independent accounting firm.

School-Specific Objectives

Goal 1: **ILSA** recognizes that the success of the school and its academic goals depends on having high quality faculty and support staff with a strong student advocacy commitment. Final hires will depend on each applicant's ability to demonstrate academic expertise, sincere interest in the mission of the school and a willingness to partner with the parents, administration and Board of Directors to nurture and develop all students to their full potential.

➤ **ILSA's** goal is to attract a dedicated faculty and maintain a faculty retention rate of 80% by its third year.

Goal 2: As important as teachers are to a school, so are the students and their parents. Our assessment of their satisfaction will be measured by the following indicators:

- attendance of 90% of students, parents or guardians at conferences during the school year;
- attaining a 3.0 composite rating (on a 4.0 scale) from 75% of all parents on an annual satisfaction survey;
- a re-enrollment rate of at least 90% of all students who have not relocated more than 10 miles from the school; and
- at least 100 students on our waiting list after the first year and at least 200 after the second year.

Any relevant data will be recorded by staff and faculty and included in our annual report, along with the results of student and parent surveys and a summary of student achievement.

II. Who We Are

A. Founding Group

ILSA's board brings a diverse set of skills to ensure that **ILSA** can successfully carry out its key tasks and become a unique and effective addition to the local educational community. Very briefly, current members of our founding group are:

- Theresa J. Wright, M.D., **ILSA** President - Physician; Cardiologist and *Senior Clinical Research Physician* with Eli Lilly and Company.
- Vedat Akgun, Ph.D., **ILSA** Vice President - Dr. Akgun served as *co-founder and board vice president of the Horizon Science Academies* in Ohio.

- Bryan A. Woodfork, R.Ph., **ILSA** Vice President - Pharmacist; *Manager of Clinical Trials and Management* at Eli Lilly and Company.
- Gregory G. Taylor, ESQ, **ILSA** Secretary – *Attorney*; a partner with the law firm of Ganzalez, Saggio, & Harlan, LLP and EEO board member to the Mayor of Indianapolis.
- Ann M. Lorenz, **ILSA** Treasurer – *Accountant*, MBA; owner of a tax and bookkeeping firm with over thirty years of experience.
- Bulent Bayraktar, **ILSA** Board Member - Mr. Bayraktar has experience in both academic and industrial aspects as *Biomedical Engineer* and is now pursuing a Ph.D.
- Kathy R. Clark, **ILSA** Board Member - a *Teacher* and consultant to the Indiana Department of Education, with an MS in Counseling.

Detailed leadership information and background check authorizations are provided in the **Appendix A**, and **Appendix B**, respectively. More descriptive information follows:

Theresa J. Wright, M.D., is the *President* of the board and will participate in every step of the pre-authorization and post-authorization processes.

- She has both B.A. and M.S. degrees in Chemistry and received her M.D. degree from Indiana University School of Medicine, and has a fellowship in Cardiology from the University of Iowa.
- She has more than thirty years experience in life sciences and has excellent ties to the community through her professional affiliations.
- Dr. Wright's association as a member of the Board of Trustee of Franklin College, a member of the Corporate Advisory Board for the Association of Black Cardiologist and her other professional affiliations are leading to collaborations with a number of educational programs and other community-related initiatives.
- Dr. Wright proclaims "My life is a perfect example of what can happen to an academically at-risk, low self-esteem student who is placed in a nurturing learning environment. I am very sensitive to the need for high quality education for **all** students, especially in the ever-demanding areas of life sciences, math and technology. I embrace and strongly support the mission and philosophy of **ILSA** and what **ILSA** can bring to the Indianapolis community."

Bryan A. Woodfork, R.Ph., is the *Vice President of Public Relations* of **ILSA** and has more than twenty years experience in pharmacy practice and clinical research.

- Mr. Woodfork has a BS degree in Pharmacy and a post-graduate degree in Pharmacy Counseling from Purdue University.
- Mr. Woodfork's extensive community contacts and affiliations serve as a platform for financial and institutional support, as well as for helping with key public relations decisions.
- According to Bryan, "I am very qualified to emphasize the importance of how a strong math and science background can be a precursor to a successful career in the life sciences."

Vedat Akgun, Ph.D., is the *Vice President of Academics* and brings his experience as a founding board member of Horizon Science Academy.

- He has M.S. and Ph.D. degrees in Industrial Engineering, specializing in Operations Research from the University at Buffalo.
- Dr. Akgun has extensive experience in successful charter school development and a strong background in science, math and technology.
- Mr. Akgun says: "I want to bring my experience as a founding board member of two very successful Ohio charter schools to make **ILSA** a reality."

Ann M. Lorenz, M.B.A., is the *Treasurer* of the board and oversees current financial matters, including budgets.

- Ms. Lorenz has a Bachelor of Business Administration degree from the University of Cincinnati and a Master of Business Administration degree from Anderson University. She is an experienced accountant and financial manager performing bookkeeping, payroll services, and business management for small and medium sized businesses in and around the metropolitan area.

Gregory G. Taylor, J.D., is the *Secretary* of the board, helping the school with legal issues, our facility search and contract negotiations.

- Mr. Taylor has B.A. and Doctor of Jurisprudence degrees from Indiana University.
- He also serves as a member in the City of Indianapolis' Equal Opportunity Advisory Board.

Kathy R. Clark, M.S., is a board member with more than fifteen years experience in teaching and education.

- Ms. Clark has a B.S. degree in education and a MS degree in Counseling from Butler University.
- Her experience as a teacher, a consultant for the Indiana Department of Education and as a board member for Zionsville School Corporation is helping **ILSA** to design and implement its educational philosophy and curriculum approach.
- Ms. Clark says: "With my background in education and a focus on doing what's best for children, I add a perspective that assists in creating a very meaningful educational institution to both serve our children and support our state's initiative in the life sciences."

Bulent Bayraktar, M.S., has Bachelor of Science and Master of Science degrees in Electrical Engineering and Applied Physics from Case Western Reserve University.

- He is currently in the process of earning his Ph.D. with an emphasis on Biomedical Engineering.
- With substantial experience in teaching and tutoring, he will help **ILSA** to develop and implement its full science, math and technology curriculum.

ILSA is actively recruiting parents, community leaders and professionals from the life sciences, universities, primary education as well as other related institutions to provide a strong governing Executive Board and Advisory Board. We have included a partnership and support letter from the Franklin College in **Appendix C**. As these partners are added, an updated status report will be provided to the Mayor's Committee.

III. Educational Services Provided

A. Educational Philosophy

ILSA will base much of its curricular approach on the proven model of the Horizon Science Academies discussed in the "Needs" section. This also has involved the active participation of a number of founders and staff of those schools. The Horizon educational philosophy is discussed at length at www.hass.org.

ILSA's founders believe that all children can learn when they are given individual attention within an inspiring and supportive learning environment in which students, teachers, and parents work as a team. They

envision a school where dedicated, sincere, and committed teachers and administrative personnel identify those factors that prevent each child from learning to the best of his or her ability.

We are fully aware that students entering **ILSA** will have diverse past levels of success in math and science as well as in reading and social studies, and again will utilize strategies that have proven affective at Horizon:

- **ILSA's** approach is to individualize instruction by providing extra courses and time to students performing below grade level, as well as offering advanced courses to students who are working above grade level.
- Based on the experience of Horizon, by the eighth grade many of our students will be learning an advanced curriculum, including algebra and biology, in preparation for entering the Honors/AP track through taking college preparatory high school programs.
- In addition, **ILSA**, like Horizon, will offer a full range of enrichment classes to provide extra time for critical thinking skills, reading and social activities.
- Our requiring each student to do at least one science project at every grade level will help students improve their scientific thinking, be independent readers and researchers, enhance their writing and presentation skills, and increase their self confidence.
- **ILSA** will organize a science fair in Indianapolis to feature its student projects. **ILSA** students will also participate in local, national, and international science fairs and project competitions.

ILSA will combine the Indiana Academic Standards with proven methodologies that have been successful at Horizon. These include:

- Teacher-directed small group instruction
- One-on-one teacher instruction
- Combining Problem-Based Learning with Project-Based Learning
- Peer tutoring
- Ongoing Computer activities
- Educational and motivational field trips
- Home visits by teachers
- Online performance tracking by parents
- After school and Saturday activities, including group studies and tutoring
- Local, national and international trips, both scientific and cultural

We will specifically recruit staff who are excited about these learning approaches and are willing to spend the extra time necessary to make them successful.

- Teachers at **ILSA** will work together to refine, share, and develop effective teaching strategies.
- With the help of team teaching, there will be continuous curriculum planning to ensure consistency between different grades as well as cross-curricular developments in each grade.

Teachers will use multiple teaching methods. For example, some students respond well to following math formulae; others need to develop spatial and fractional logic in order to understand why the formulae work before they can internalize and apply that learning to more advanced applications. Ongoing professional development and collaborative planning time will be used throughout the academic year to continue developing and refining curriculum, teaching strategies, assessments and materials. In addition, weekly

professional development activities will focus on building teachers' repertoires of instructional activities that can be incorporated into classroom instruction.

Instructional units will be organized around real world issues or applications or will provide experiential learning activities to build concrete understandings upon which more abstract concepts and skills can be built. These approaches increase the relevancy of classroom learning and promote the acquisition of higher level, critical thinking skills within and across disciplines. Service learning and enrichment learning activities will be structured to relate to classroom instruction and to encourage student application of knowledge in differing settings.

B. Curriculum

The Indiana Life Sciences Academy will have a rigorous college preparatory curriculum with an emphasis on science, math and technology. The **ILSA** curriculum is being designed to conform to the Indiana Academic Standards based upon the proven practices of the Science Academy Project at Horizon Science Academies. These include innovative approaches such as Problem-Based Learning, Cooperative Learning, and Brain Compatible Learning, which have proven extremely effective with inner city students. Even though more emphasis will be given to science, math and technology, **ILSA** will meet and exceed state standards in the fine arts, social studies, language arts, and all other subjects.

Our curriculum includes the grouping and sequencing of specific standards to allow teaching those skills concurrently, while providing students with in-depth experiences to promote conceptual mastery of each standard. To demonstrate mastery, students will be required to apply skills in completing specific tasks to ensure learning is deeper than is required by traditional assessments. The curriculum will include recommended performance assessments to be used throughout the instruction in the following ways:

- pre-assessments as both a diagnostic tool and as a baseline measure of student performance
- ongoing assessments that teachers will use throughout the instruction to gain information about student learning, in order to adjust instruction accordingly and to allow differentiation and/or individualization of instruction tailored to specific student strengths and weaknesses
- post assessments to clearly indicate that students have fully met each standard

Our curriculum at each class level shall be collaboratively refined by classroom teachers in the spring or summer prior to school opening. Teacher input into the finalization of the curriculum encourages cross-curricular instruction (paired teaching across two or more subject areas). The curriculum is designed to allow teacher flexibility in instructional methods and also to allow teachers to capitalize on student interests and strengths as a means for creating meaningful and effective instruction in any area in which students are struggling.

ILSA will use the Indiana Academic Standards and Core40 curriculum as a base curriculum for middle school and high school. **ILSA** will improve upon this basic curriculum by using the proven methodologies from the Horizon Science Academies. These improvements include:

- Separation of science subjects at the middle school level into earth sciences, life sciences and physical sciences. Different instructors will teach each subject to increase productivity and take full advantage of expertise in their respected fields.
- Each student will be asked to complete a science project every year. Some of these projects will be done in close collaboration with universities and research institutions. This improves students' scientific thinking, writing and presentation skills, reading skills and self-confidence. Successful projects will result in attendance at local, national and international science competitions.

- Site visits to universities, university labs and other institutions, especially those actively partnering with **ILSA**.
- Additional elective courses such as environmental studies and genetics.

A Core40 diploma requirement includes 40 credits, while an academic honors diploma requires 47 credits for high school. **ILSA's** high school graduation requirement requires 48 credit hours (Please refer to **Appendix D** for graduation requirements and course recommendations). The following content area and grade level descriptions for core subjects serve as a starting point for **ILSA's** curriculum:

MATHEMATICS	
MIDDLE SCHOOL	HIGH SCHOOL
Number Sense Computation Algebra and Functions Geometry Measurement Data Analysis and Probability Problem Solving	Mathematical Reasoning and Problem Solving Equations and Inequalities Relations and Functions Logarithmic and Exponential Functions Sequences and Series Geometry Trigonometry Calculus Probability and Statistics Discrete Mathematics

SCIENCE	
MIDDLE SCHOOL	HIGH SCHOOL
The Nature of Science and Technology Scientific Thinking The Physical Setting The Living Environment The Mathematical World Common Themes Historical Perspectives	Principles of Biology Principles of Chemistry Principles of Earth and Space Science Principles of Environmental Science Principles of Integrated Chemistry – Physics Principles of Historical Perspectives

ENGLISH & LANGUAGE ARTS
MIDDLE SCHOOL & HIGH SCHOOL
Reading (Word Recognition, Fluency, and Vocabulary Development) Reading (Comprehension) Reading (Literary Response and Analysis) Writing (Process) Writing (Applications) Writing (English Language Conventions) Listening and Speaking (Skills, Strategies, and Applications).

SOCIAL STUDIES	
MIDDLE SCHOOL	HIGH SCHOOL
Grade 6 (Peoples, Places, and Cultures in Europe and the Americas)	World History and Civilization
Grade 7 (Peoples, Places, and Cultures in Africa, Asia, and the Southwest Pacific)	World Geography
Grade 8 (United States History - Growth and Development):	United States History
	United States Government
	Economics
	Psychology
	Sociology

Detailed explanations of core subjects are given in **Appendix E**.

Example of Alignment with Indiana Standards

The following example demonstrates how the work of students in 8th grade Pre-Algebra is aligned with the state standard:

Students are asked to solve the following problem: Jessica would like to purchase roller skates. The ones she likes cost \$59.95, plus 6.5% sales tax. She currently has a savings of \$12.75, and she earns \$8.75 a week delivering local newspapers. How many weeks will it take her to save enough money to purchase the roller blades?

To solve this problem, students first will calculate the total cost of the roller blades (Standard 8.2.1: Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals in multi-step problems), and then write and solve a one variable linear equation and interpret the result (standard 8.3.1: Write and solve linear equations and inequalities in one variable, interpret the solution or solutions in their context, and verify the reasonableness of the result).

Meeting Individualized Student Needs

The nature of the **ILSA** curricular approach allows all teachers the flexibility to individualize student assignments regarding specific needs and updated student performance indicators in relation to specific standards. This approach includes the extensive use of Individual Education Plans (IEPs) for all students.

This flexibility allows schoolwork to be adapted to meet any special or language needs. Extra time for individualized instruction builds students' skills in reading and math. Students may incorporate regular classroom work into individualized studies to provide additional assistance in coursework. In addition, weekly collaboration and in-class assistance by **ILSA's** Special Education and English-as-a-Second Language (ESL) teachers will build their capacities to monitor and adapt the curriculum to the requirements of an individual student.

These strategies apply equally to students entering the school below grade level. **ILSA** is fully aware that many incoming students will come from schools with less rigorous academic programs and less disciplined learning cultures. Much of our staff training will be geared towards solidifying a culture of an expectation of excellence before school opens. IEPs, tutoring, teacher collaboration, strict discipline, and other strategies successfully employed at Horizon (where a high percentage of students enter at below grade level) will be utilized within the framework of motivation and encouragement. Every student will have a timeline that will state dates and specific goals (including standardized test results) against which progress (or any lack of progress) can be gauged.

C. Assessment

Ultimately, the overall excellence of **ILSA** can only be measured by the school's ability to develop students who are consistently high quality performers. **ILSA**'s classroom instructional approach involves teachers acting as researchers to continually improve instruction. Ongoing assessments will give an indication as to what students are learning, where they are struggling, and why. This information will be used and compared to an analysis of what students need to master to meet a variety of specific learning standards.

Student Entry Assessments:

Unlike many IPS middle and high school magnet programs, **ILSA** does not require students to “qualify” for entry based on previous grades, achievement test scores, teacher recommendation, etc. **ILSA** offers an equal opportunity to all students and will use specially designed assessments (based on those used at Horizon Science Academies) to determine optimal placement to accommodate each student’s skills and learning style.

All students who exhibit low initial proficiency assessments will be reassessed monthly. If performance improves at a rate greater than the expected improvement for a given level, the student may be reassigned to an appropriate higher level of training.

Student Progress Assessments:

As with curriculum, all academic and non-academic assessments and standards used will not only be aligned with the assessment and testing requirements mandated by Indiana Academic Standards, but incorporate additional tools and benchmarks in terms of the school's mission and goals.

Several types of assessments will track specific skills and learning. These include state exams to ensure that students are meeting all state standards and national exams to help **ILSA** administrators and faculty evaluate the strengths and weaknesses of our methods when measured against a national norm. Evaluation and assessment instruments to be used may include:

- Indiana Statewide Testing for Educational Progress (ISTEP) in all appropriate subjects and grade levels.
- Indiana GQE exam as required per Indiana Academic Standards.
- Testing students in *all grades levels* with the Terra Nova exam in both the fall and spring. We feel that this will provide our students and teachers with a consistent within-year guide to individual progress, as well as alert us to any overall trends.
- Daily feedback in terms of homework and project assessments to promote consistent study practices among students and to encourage parent participation in the learning process.
- Weekly assessments utilizing announced and impromptu quizzes to encourage students to be prepared at all times.
- Monthly assessments with 1:1 student/teacher conferences to allow for mutual feedback on performance and accountability for both the student and the teacher.
- Quarterly assessments utilizing grade cards and progress reports to provide more comprehensive reviews and assessments of each student’s progress
- Pre-SAT, SAT and ACT tests for high school students wishing to go on to post-graduate studies (at **ILSA**, based on Horizon's experience, this will probably include the entire junior and senior classes).

- Individual science projects with performance assessments by peers, teachers, and invited guests (scientists, professors, researchers, etc.) Those students whose projects are deemed exceptional will be entered into local (metro), regional, state and potentially national competitions.
- Parent surveys, which also encourage continuous communication with parents on their child's behalf. A more detailed description of these surveys is outlined in the "Goals" section above.
- **ILSA** will also provide online access for parents and students to allow updated checking of individualized performance.

Teacher Assessments:

As mandated by the Indiana Academic Standards, **ILSA** will require all teachers to be current on their training and to undergo standard and school-specific performance assessments. Performance staff assessments will be conducted twice a year by the Director and respective Dean, and more frequently as needed. **ILSA** will support a variety of programs to encourage and promote continued education (as well as professional development) for its teachers, including weekly staff meetings, summer exchange programs, and educational sabbaticals.

Overall School Assessments:

After sufficient data has been gathered from test scores, parent surveys, and other criteria and rubrics, **ILSA's** board will authorize a subcommittee to include parents and staff to review the status of the school in terms of its performance objectives and designate areas and strategies for improvement. Student scores will be weighed against the results (1) earlier in the year (if appropriate), (2) past years, (3) other schools, and (4) other charter schools.

This subcommittee will meet at least four times each year and examine not just hard data but also additional parameters such as school culture, spirit, adequacy of professional development opportunities, student and staff motivation, degree of parent volunteer contributions, and overall satisfaction with the school by parents, students and staff (as expressed through surveys and other feedback).

All areas deemed in need of improvement will be targeted through specific strategies under the overall supervision of the Director, with help from respective Deans and other staff who have oversight over an area. A continual tracking and monitoring process will occur with regular reports made to the board and broader school community.

Objective School Evaluation:

ILSA will also consult with independent evaluators to provide concrete feedback on both areas in which we are fulfilling our goals and those that need improvement. Resulting reports will be sent both to the board and to all families, as well as discussed by and with the administration and staff.

D. Special Student Populations

Limited English Proficiency:

ILSA will provide a variety of special services to assist ESL and limited English proficiency students, along with their parents.

- Based on the number of these students (which will be ascertained once our enrollment becomes clear), **ILSA** will hire a sufficient number of faculty with experience in teaching second language learners.
- Although all core curriculum classes will be taught in English, there will be ongoing in-class support for English as a Second Language (ESL).

This approach recognizes the importance of preparing ESL students for content instruction in English and of integrating students of all cultures into a common academic program.

Language needs of all children will be met with a clear recognition that the ability to perform academically in English is necessary for every child's long-term success. The school will meet these complex sets of needs not by dividing children into fluency or language groups, but by placing all children together in mixed groups and then providing the necessary classroom resources to allow all children to excel. And by including native English speakers in all classes, **ILSA** will not only provide students with second language instruction but also create a sense of balance in a school community that recognizes the importance of all languages and cultures.

ILSA will use parent volunteers and community services as well as specialized ESL software packages, to supplement in-class ESL instruction.

Academically at Risk:

Approaches to students testing below-grade level are discussed elsewhere in this proposal. **ILSA's** programming is heavily modeled on the successful strategies used at the Horizon Science Academies for this particular population, which include extra tutoring, teaching modules, computer-based learning, family participation in the learning process, and setting high expectations to encourage and even demand that all student performs at their full potential. The results of these strategies are evident from the large improvements in Ohio Proficiency test results outlined in the "Needs" section. Horizon's experience also proves that when students are given hope and the real expectation of a university education, they will feel a far greater motivation to succeed.

Special Needs

ILSA plans to join the Indianapolis Charter Special Services coop (ICSS) and make full use of its services in both helping to assess and service special needs students. We are well aware that although we will hire multi-licensed special needs staffers, we will not be able to serve in-house the full variety of needs our students may have. We plan to both partner with other charter schools whose staff may be licensed and have expertise in additional areas, as well as outsource to consultants and service centers where students might get specialized attention in these instances. In addition to referrals, we will also depend heavily on the ICSS Director and special needs staffers from other charter schools to help with relevant reporting, evaluative, programmatic, and reimbursement aspects.

At the same time, **ILSA** will not neglect the gifted student. Each student will be encouraged to perform to the best of their abilities, and given every aid in challenging themselves to do so. As at Horizon, competitions, fairs, apprenticeships, scientific experiments, and numerous other devices will be used to encourage each student to fully use their creativity and to continually strive to do better.

IV. Organizational Viability and Effectiveness

A. Enrollment and Demand

ILSA plans to open in fall 2004 with grades 6, 7, 8 and 9. Following the 2004-5 academic year, it will add one additional grade each year. The total number of students will increase to reach 420 within four years. Beginning with the fifth year, the number of newcomers will match the number of annual graduates.

YEAR	STUDENT ADDITION	GRADES	TOTAL
Year One	60 students for every grade	6,7,8,9	240
Year Two	Additional 60 students for grade 6	6,7,8,9,10	300
Year Three	Additional 60 students for grade 6	6,7,8,9,10,11	360
Year Four	Additional 60 students for grade 6	6,7,8,9,10,11,12	420
Year Five & After	No additional students	6,7,8,9,10,11,12	420

While somewhat higher than many charter schools, **ILSA's** enrollment figures are based on the experience and results of the Horizon Science Academy in Cleveland. They take advantage of: (1) a team-teaching program that features 20 students per grade and three classrooms at each grade level, which has proven very effective at Horizon; (2) maximizing fiscal, capital and administrative efficiency in a K-12 environment; and (3) a larger enrollment to meet the need for a potentially higher investment in technology and science equipment to enable **ILSA** to fulfil its particular mission and focus.

- **ILSA** will be open to all students who are entitled to attend public school. It will not discriminate on the basis of race, color, national origin, creed, sex, ethnicity, sexual orientation, mental or physical disability, age, religion, ancestry, or athletic performance.
- **ILSA** will ask both students and their families to sign a Letter of Commitment to promote the particular mission of the school. This includes a commitment on the part of each student to work hard, complete all homework assignments, and respect one another. This "family covenant" has proven greatly successful in establishing a disciplined culture and school environment in many other charter schools across the country.

Lottery

In the event that more new students apply than space allows, eligible students will be enrolled through a *lottery* system. All remaining eligible students will be placed on a *waiting list* and accepted as space becomes available. Students who decline to enroll when accepted will be deleted from the list and re-application will be necessary for future consideration. Students already enrolled in the school, and who meet continuing enrollment standards, will be granted first available spaces.

Students will be notified of their initial enrollment status one week after the lottery. Students whose names are drawn in the lottery must confirm their intention of enrolling within the time allotted in their notification of admission.

Demand

ILSA's founders have conducted a survey of Indianapolis families to establish the potential interest for a school with a life science/technology/math focus. Survey results indicated a strong interest from many parents in sending their children to a new school with **ILSA's** particular academic focus.

In addition, **ILSA** is aware of numerous student extracurricular/enrichment activities metro-wide that are oriented towards technology, math and science, and the life sciences. These include literally hundreds of *clubs, special classes and summer camps*, including: 4-H, pet, computer and technology, rocketry and aeronautics, robotics, web and game design, math, inventors, chess, nature and ecology, museum-based, and activities in many other fields. Many thousands of students in the metro area participate in these and similar organized activities, and many of these would be interested in pursuing more intensive academic studies in an area related to their interests. A concerted effort will target these students for recruitment.

Publicity

- **ILSA** shall continue to gather more public support by making a video that utilizes Horizon's classrooms and enrichment program to illustrate the types of learning that will take place at our own school. It will also include short interviews with college and industry representatives about the city's need for intensive educational options in the life sciences and associated areas. This video will be shown at meetings, associations, churches, community centers, on educational television, and wherever we can gain access to a prospective audience.
- **ILSA** will place a particular focus on recruiting students participating in the clubs, classes and camps outlined above, as we see this as a principal and available source of bringing interested students to the school. Other recruiting strategies include:
 - Posting notices in museums and other exhibit areas that focus on science.
 - Asking institutions already focused on the life sciences, including the life science corporations, schools of higher learning, research facilities, hospitals, etc., to help publicize the school to potential students and families through postings in their newsletters and bulletin boards, giving presentations, etc. Many of these institutions already have a vested interest in training public school students in the life sciences.
 - Publicizing **ILSA** in life science and technology work places in which employees may have children with similar interests.
 - Issuing a press release to all branches of the media (TVs, radio stations, local community newspapers)

In addition to the above, **ILSA** will make a special effort to outreach to families traditionally less informed about educational options. The Horizon experience shows that students from families that may be less economically stable are just as interested in science, math and technology as are other families, and may have a greater incentive to take advantage of educational opportunities that lead to higher paying employment. In addition, many of these families will be looking for a more academically rigorous and smaller program focusing on individualized attention, especially one that has already been proven successful in Cleveland's inner city. Strategies we will use to reach this population include:

- **ILSA** representatives will speak at community centers and clubs in areas where schools are failing.
- We will outreach to existing and planned charter elementary schools.
- We will work closely with churches and faith-based organizations.
- We will work with BAEO (the Black Alliance for Educational Options) as well as organizations like the Urban League and the NAACP to attract students who want what we can offer.
- We will also outreach to Hispanic populations and if appropriate, translate our literature into Spanish to make it more accessible.

B. Governance and Management

Board of Directors

ILSA's Board is responsible for protecting the public interest and upholding the public's trust through applying the highest standards of service in governing the school, according to its by-laws and all relevant state and federal statutes.

Selection and Training

Board members are nominated and elected on the basis of a firm commitment to the mission, goals and objectives of **ILSA**; qualities of leadership; service; and expertise in a range of fields such as education, finance, human resources, administration and technology. They must unequivocally support the educational philosophy espoused in this document. Current members are continually seeking qualified candidates to help fill any perceived gaps. These are interviewed and then brought to a board meeting, and if all parties fill it is in their best interests, they are asked to join the Board.

SchoolStart

Ongoing board development is being undertaken by SchoolStart, which is also serving as an advisor to the Flanner Elementary School, Flanner Higher Learning Center, and CTAS, which have all been sponsored by the Mayor. SchoolStart is a Minnesota-based not-for-profit with experience in helping to launch successful charter schools in a variety of states. It has already provided a board retreat for both Flanner schools.

SchoolStart will assist **ILSA** by giving guidance not only in all aspects of board training and development, but in the areas of finance, fundraising, governance, staff development, accountability, and other key issues, with the aim of building our own capacity for long-term success. SchoolStart's role will be purely advisory.

SchoolStart's President is Jon Bacal (Tel: (612) 377-7866; Fax: (612) 377-8241; email: jonbacal@schoolstart.org). It is located at 1217 Bandana Blvd. N., St. Paul, MN 55108. A letter regarding this partnership is contained in the **Appendix F**.

Board Responsibilities

The Board of Directors will be responsible for long-term oversight in the following areas:

- Long-term strategic planning, establishing policies, and assessing the performance of the school as a whole.
- Ensuring that all responsibilities to the Mayor's office are maintained.
- Identifying, selecting, working with, supporting and evaluating **ILSA's** Director as the professional educational leader of the school.
- Ensuring that **ILSA's** facility is fully ready before each academic year.
- Ensuring that the activities of the school are fully aligned with its mission.
- Approving and monitoring the school's annual budget.
- Receipt of funds for the operation of the school in accordance with charter school laws.
- Solicitation and receipt of grants and donations consistent with the mission of the school.
- Approving the school's personnel policies and monitoring the implementation of these policies by the Director.
- Establishing and maintaining major partnerships.
- Any other responsibilities provided for in the Articles of Incorporation, Bylaws or charter necessary to ensure the proper operation of the school.

No board member represents only a specific constituency. It is imperative that the Board of Directors makes its decisions for the present and future welfare of **ILSA** as a whole, rather than in response to personal priorities or the wishes of vocal factions. In addition, no member may speak for the Board on any issue until the Board in its entirety has decided that issue.

Board Committees

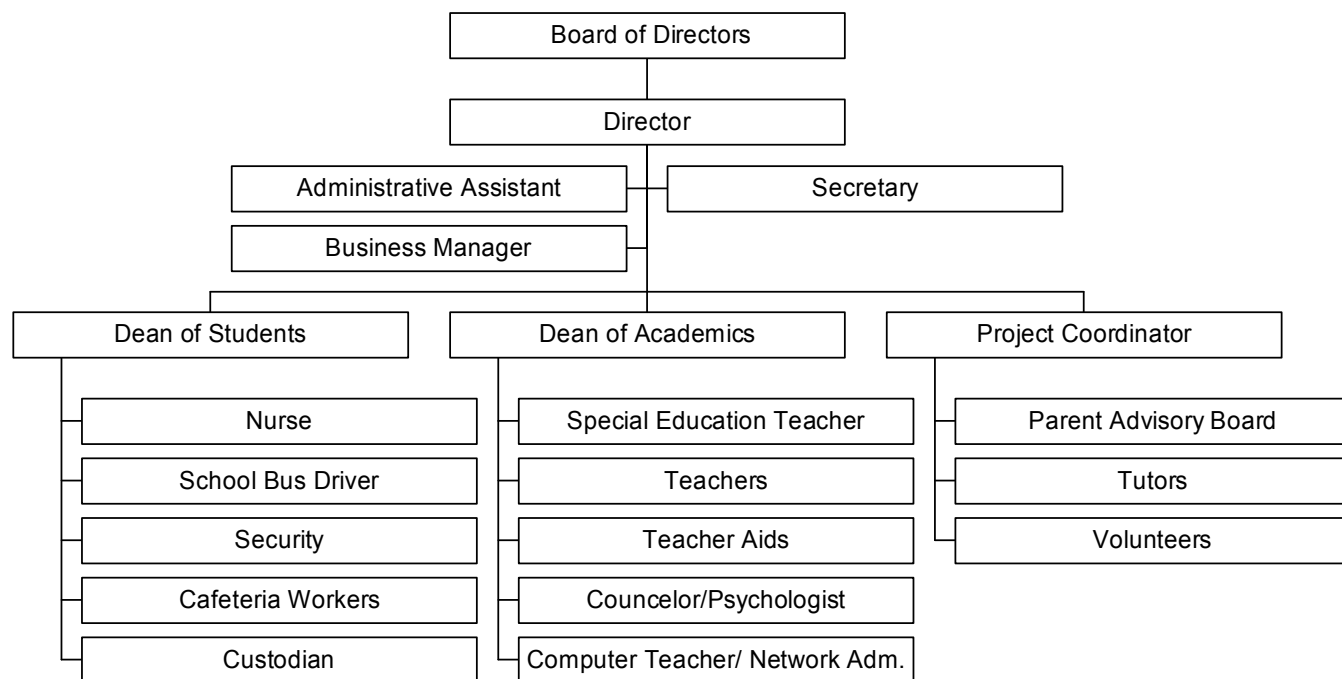
Board committees, which may contain non-board members, report to the full Board for final approval before taking action. Potential committees and their missions include:

- **ACADEMIC:** Review curriculum to ensure compliance with the mission of the school; recommend policy change to the board; and participate in program development and evaluation.
- **PERSONNEL:** Recommend job descriptions to the board; review the director's recommendations for hiring and firing employees and make recommendations to the board; and provide advice on personnel matters to the board and the director.
- **COMMUNITY AND PARTNERSHIP RELATIONS:** Seek out active involvement of the community and major partners; act as a liaison between the board, staff, parents, volunteers, city, and community to ensure smooth operation of the school; and oversee a strong home-school communications program.
- **FINANCE:** Prepare annual operating and capital budgets; review monthly actual revenues and expenditures; prepare procedures to be performed by the audit sub-committee and review reports by this sub-committee; and provide advice on financial matters to the board and the director.
- **FACILITIES AND EQUIPMENT:** Determine space and equipment needs and associated costs; help locate a facility and negotiate a lease; ensure compliance with all regulations; develop large-scale plans for any necessary renovations to the site; help monitor ongoing compliance with regulations; and ensure maintenance of the school building and equipment.

Organizational Chart

Structure of the governance is summarized in the chart below, followed by the roles and responsibilities of key administrators:

Organization Chart for Indiana Life Sciences Academy



Roles and Responsibilities of Other School Leaders

Director

We will seek a Director with the following qualifications: • 5 years of teaching and/or administrative experience in education • strong organizational and interpersonal skills • excellent communications skills • demonstrated management and leadership skills • commitment to Indiana Life Sciences Academy's mission and values.

Responsibilities: The Director must support shared decision-making, promote collaborative leadership, and require accountability from all people in the school. In addition to serving as the educational leader of ILSA, the Director is responsible for *day-to-day* planning, facilities management, and scheduling, and supervision and evaluation of staff. The Director will prepare the annual budget in cooperation with the Business Manager. He or she will be the final decision-maker regarding all school personnel (subject to board approval), always taking into consideration the advice and counsel of the Board, Deans, Project Manager, Business Director, and other staff, as appropriate.

The Director serves as a nonvoting ex-officio member of the Board of Directors. As an adjunct to the Board, the Director will establish and maintain regular communications with the Mayor's office, local boards of education, superintendents, and the county administrators.

The Director will submit to the Board each year a report containing aggregate statistics of the performance of every grade on state-mandated tests and on other major assessments specified by the Indiana Life Sciences Academy curriculum. While not identifying individual students, this data will include statistical comparisons to indicate to what degree students are collectively benefiting from instruction in each class and grade.

In addition, the Director is responsible for knowing each student on a personal basis and maintaining positive relationships with parents or guardians.

Dean of Students

Qualifications: • 5 years of teaching and/or administration experience • strong organizational and interpersonal skills • excellent communication skills • demonstrated discipline skills

Responsibilities: The Dean of Students is responsible for overall discipline issues within the context of ILSA's culture, for all issues related to transportation, fire and safety, and lunch-related issues. Reports to the Director.

Dean of Academics

Qualifications: • 3 years of teaching and/or administrative experience, specializing in curriculum • strong background in science, math and technology, with an emphasis on the life sciences • strong organizational and interpersonal skills • excellent communication skills • demonstrated academic skills • shared vision to Indiana Life Sciences Academy's mission.

Responsibilities: The Dean of Academics is responsible for overall academic issues, including curriculum; teacher training; student testing and ensuring that academic standards and accountability procedures are adhered to; following up on daily and annual curricular plans; reporting to parents regarding their children's academic levels; overseeing admissions issues; and tutoring and advanced study teams. Reports to the Director.

Project Coordinator

Qualifications: • 2 years of teaching and/or administration experience • strong organizational and interpersonal skills • excellent communication skills • demonstrated academic and social skills • shared vision to Indiana Life Sciences Academy' mission.

Responsibilities: The Project Coordinator is responsible for special science & math projects and competitions, fund raising and grant-writing. Reports to the Director.

Business Manager

Qualifications: • Accounting and business background • clear understanding of budgets and fiscal planning • knowledgeable or ability to learn state educational/fiscal reporting systems • familiar with key software packages. Reports to the Director.

Responsibilities: The Business Manager shall be responsible for ensuring that all financial records are up-to-date, that the budget is adhered to, that any expenses are allocated in accordance with the budget, and that the all vendors are selected in strict accordance with an established school process. Helps in preparing the annual budget and audit.

Articles of Incorporation, Bylaws and the verification of non-profit status are provided in the **Appendix G**. Note that ILSA has formally applied for, but not yet received, it's 501(c)3 status.

C. Budget and Financial Matters

Overview

- School revenues derive from state funding and grants, federal grants, donations and consumable fees.
- Bank loans and personal loans may be used if necessary.
- The revenue and cost estimations are based on the experiences of the founding member's previous involvement with the Horizon schools, as well private schools.

Revenue Assumptions:

Carry-over from previous period. The fund balance remaining from the previous period. The cash reserve is added to the balance as it is carried forward.

State Per Pupil Funding. Based on the Indiana Department of Education's school formula estimates for Calendar Year 2003 (made available to the Indiana Charter Resource Center recently). This formula includes State Regular aid, Levy funds, Auto Excise funds, Special Ed, At Risk and Prime Time funds.

We assume that at least 80% of our students are resident in the Indianapolis Public School District (average of \$6,700 per student annually), and up to 20% will come from surrounding township schools (average of \$5,700 per student annually), yielding a blended average of \$6,500 per student. We expect to qualify for some categorical funding from the state and federal departments of education, but have not included these monies in our revenues since they are dependent upon the composition of our student body, which is not yet identified.

Federal Start-Up Grants. **ILSA** expects to be awarded this competitive grant, which currently amounts to \$150,000 per year for three years.

Private Funds. These sources include planning and special project grants from individuals and foundations.

- We plan to submit applications to the Walton Family Foundation (which is currently granting approximately \$150,000 to all schools partnering with SchoolStart).
- We will also seek grant opportunities through the Gates Foundation High School Project as we currently serve high school grade levels.
- Under the guidance of the financial advisory board our board of directors, we are also actively soliciting other foundation monies, as well as private donations.

Corporate Funds. These sources include planning and special project grants from corporations, especially from the life sciences industry.

Lunch Revenue. This includes both State funds for students with free and reduced lunch classification as well as fees paid by families. We estimate this amount at \$2 per student per day for 195 days.

Other (competitive public) Includes competitive state and federal grants such as Safe Schools initiatives, and Comprehensive School Reform funding.

We estimate inflation at 3% annually per calendar year.

Enrollment Projections

YEAR	ENROLLMENT
2004-05	240
2005-06	300
2006-07	360
2007-08	420
2008-09	420

Expenditures:

Assumes a 3% annual inflation rate on most items.

Position	Salary	2004-05	2005-06	2006-07
Director	\$60,000	1	1	1
Dean of Students	\$38,000	1	1	1
Dean of Academics	\$38,000	1	1	1
Project Coordinator	\$40,000	1	1	1
Teachers	\$35,000	12	15	22
Special Education Teacher	\$38,000	1.5	1.5	1.5
Clerical/Office Manager	\$25,000	1	1	1
Social Work/Counseling	\$38,000	1	1	1
Enrichment Coordinator	\$20,000	1/2	1/2	1/2
Custodial Services	\$10,000			

Note that during the preoperational year positions will be contracted, rather than salaried.

Positions will shift to salary at the beginning of the First Operational Year – in July of 2004.

Consultant Salaries: Curriculum Development, evaluation, or other educational program consulting calculated at \$2,000 in the preoperational year, and \$2,000 in subsequent years.

Benefit and Taxes. Calculated at 25% of salaries.

Professional Development. Includes \$4,000 to cover ongoing professional development activities, and \$250 per teacher for conferences or training. An additional \$4,000 is estimated in the first operational year for summer of 2004 professional development orientation and retreat.

Substitute Teachers. \$100 per day per teacher @10 days per teacher per year.

Board Development. Includes \$4,000 for board training in the first year; \$2,500 for subsequent years.

Facility

Rent. Calculated at 100sq ft. per student at \$11.50 per sq ft, with the rate increasing based on enrollment. Overall rent for 5 years period will be \$33,350 per month. The rent shown in the budget averaged out for the first three years.

Renovation/Construction. Initial renovation costs to make the facility accessible and meet all health and safety codes is estimated to cost \$240,000 (\$140,000 for pre-opening and \$100,000 for first year).

Utilities. Calculated at 100 sq ft. per student \$1.50 per square foot with 3% annual inflation.

Maintenance. Estimated at \$5,000 per year for repairs and cleaning supplies. Janitorial services are a separate item under Human Resources 'Custodian'.

Materials/Supplies/Equipment

Textbooks and other instructional supplies. Calculated at \$125 per student for textbooks and \$75 per student for supplies.

Assessments. Calculated at \$75 per student.

Instructional Equipment. Includes VCR and overhead projectors for classroom. Calculated at \$30 per new student for the first three years. Equips 3 classrooms per grade. Subsequent years estimate \$7 per student for repair and replacement of equipment.

Classroom Technology. Estimated at \$200 per student for the first year, \$200 per new student for years 2 and 3, and \$50 per student for maintenance and repair for subsequent years.

Office Technology and Software. Includes leasing and/or purchasing computers, printer, fax and copier; estimated at \$7500 the first year and \$4,000 subsequent years.

Instructional Software and Internet Access. Calculated at \$50 per student.

Library. For acquisitions of materials for a library/media resource center calculated at \$75 per student for the first year, \$75 per new students and \$40 per continuing students in years two and three, and \$40 per student in subsequent years.

Classroom Furniture. Calculated at \$125 per student the first year, \$125 per new student in years two and three, and \$30 per student for maintenance and replacement in subsequent years.

Office and Faculty Furniture. Calculated at \$250 per new faculty member

Copying and Reproduction. Estimated \$5,000 pre-operating year; Calculated at \$100 per student in subsequent years.

Postage and Shipping. Estimated \$2,000 pre-operating year; Calculated at \$20 per student subsequent years.

Telephone/Fax Lines/Long Distance. Estimated at \$1,500 pre-operating year, \$3,000 subsequent years.

Other Materials/Supplies/Equipment. Estimated at \$2,500 pre-operating year; \$3,000 in years 2-3, \$3,500 in year 4 and \$4,000 in year 5.

Additional Costs

Contracted Services. Consulting services, including SchoolStart, at \$60,000 pre-operating year, \$60,000 first year, \$40,000 in the second year and \$20,000 in subsequent years.

Special Education Charter School Cooperative Services. Estimated cost on participating in the Special Education cooperative, based on 2002-03 rates (cost of Director of Special Education, and overhead divided by the number of participating schools).

Business Services. Estimated at \$10,000 for consulting services on issues of strategic planning and finance, review and revisions of business plan.

Insurance. Estimate based on charter schools in other states. Includes required liability and other Coverage. Health and related personal benefits are included as a separate item under Human Resources.

Marketing Development. Consulting costs for student recruitment activities and public relations, including cost of producing brochures and materials; estimated at \$20,000 in pre-operation year, and \$5,000 in subsequent years.

Legal Expenses. Pre-operation costs include setting up the non-profit status of the school, review and approval of contracts, assistance with business services, review of personnel and other school policies. Ongoing costs include review of policy materials, review of contracts and providing counsel to the Board of Directors. Estimated at \$12,000 pre-operational year and \$5,000 subsequent years.

Accounting and Audit. Estimated at \$2,000 for pre-operational year and \$12,000 per operating year for accounting services, and \$8,000 a year for an annual audit to be conducted by a separate contractor for subsequent years.

Transportation. Service to an estimated 25% of students at \$4.18 per day for 195 days.

Field Trips/Enrichment Program Transportation and Materials. Field trips calculated at \$23 per student, 3 times a year; Enrichment program transportation and materials calculated at \$121 per student.

Food Services. Calculated at \$2.50 per day per student for 195 days.

Detailed start-up and three year operational budget is in **Appendix H**.

D. Transportation

The Indiana Life Sciences Academy recognizes that while some students wishing to attend will live beyond our ability to transport them, we must do everything we can be accessible to all. At the same time, we are aware of the need to minimize transportation costs that might drain available classroom resources, since transportation is not funded through current charter school legislation. To balance both of these concerns, **ILSA** will contract with a consultant specializing in school transportation issues to assess all available options and help recommend and implement a plan that best serves our families. Depending on our final location, our current options include:

- We anticipate that some students will be dropped off and picked up by their parents. **ILSA** will help to facilitate the establishment of carpool networks through making available names and addresses of families, etc., bearing in mind any potential liabilities resulting from associated insurance and legal issues.
- We will encourage the use of public transportation for students for whom this is easily accessible and help determine available public bus routes for students and their families living within Indianapolis. **ILSA** is also examining reimbursing students for a proportion of any public transportation costs.
- **ILSA** will investigate the possibility of using Indianapolis Public Schools' transportation system, which can provide transportation services depending upon available space within their current routes and times of school operation.
- We will examine hiring a private transportation company to transport those students who cannot walk, use public transportation nor participate in a carpool. Any private contractor will meet safety and accessibility requirements in accordance with local, state and federal regulations and as required by **ILSA**'s insurance carrier.
- Once **ILSA** is fully established, it will consider the financial impact of purchasing buses and hiring qualified drivers. We feel that this substantial investment, if deemed wise, should wait a few years until we have our essential systems in place. If **ILSA** purchases transportation vehicles, all vehicles will be in compliance with federal standards. The Department of Public Safety will inspect all vehicles intended for student transportation monthly by service personnel and annually.
- Finally, **ILSA** will be careful to make arrangements to transport any special needs students, using wheelchair accessible vehicles and services whenever necessary.

Once a facility is identified, the Indianapolis Life Sciences Academy will prepare and implement its transportation plan to adhere to the Mayor Peterson's intent that the school is both open and accessible to all students.